

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for managing a content distribution environment in which events are transmitted among clients, the clients including sending clients and receiving clients, comprising:

receiving a request for a ticket from a requesting client, the ticket to include an instruction relating to a hierarchical database an event summary identifying a set of events for which the requesting client is eligible;

responsive to receiving said ticket request, deriving the event summary from a hierarchical database comprising a plurality of groups, wherein each group can be assigned one or more clients and one or more events, the hierarchical database comprising an association between a plurality of events available at a plurality of sending clients and a plurality of receiving clients eligible to receive one or more of the plurality of events, and wherein the hierarchical database further comprising comprises a directed acyclic group structure in which the clients and events are assigned to groups such that clients assigned to a particular group are eligible for events assigned to the particular group as well as events assigned to all ancestor groups of the particular group; and

processing the instruction based on the hierarchical database

sending the ticket including said event summary to the requesting client.

2. (Canceled)

3. (Currently Amended) The method of claim 1, further comprising:
~~wherein the instruction comprises~~ receiving a new client instruction, the new
client instruction including a client identifier and a group identifier[[,]] ; ~~and wherein~~
~~processing the instruction comprises:~~
assigning a client indicated by the client identifier to a group indicated
by the group identifier.

4. (Canceled)

5. (Currently Amended) The method of claim 1, further comprising:
~~wherein the instruction comprises~~ receiving a key instruction, the key
instruction referring to a particular event summarized on [[a]] said ticket for a
particular the requesting client[[,]] ; ~~and wherein processing the instruction~~
~~comprises:~~
providing keying information to facilitate the event between the particular
requesting client and at least one additional client.

6. (Currently Amended) The method of claim 1, further comprising:
~~wherein the instruction comprises~~ receiving a new event instruction, the new
event instruction including a group identifier and an event identifier, the event
identifier indicating an event available from a particular client assigned to a group

indicated by the particular group identifier[[,]] ; and ~~wherein processing the instruction comprises:~~

assigning the event indicated by the event identifier to the group indicated by the group identifier.

7. (Currently Amended) The method of claim 1, further comprising:
~~wherein instruction comprises~~ receiving a delete instruction, the delete instruction including a group identifier and an entity identifier, the entity identifier comprising one of a client identifier and ~~a content~~ an event identifier[[,]] ; and ~~wherein processing the instruction comprises:~~

deleting an entity indicated by the entity identifier from a group indicated by the group identifier.

8. (Currently Amended) The method of claim 1, further comprising:
~~wherein the instruction comprises~~ receiving a modification instruction, the modification instruction including a group identifier, modification information, and an entity identifier, the entity identifier comprising one of a client identifier and ~~a content~~ an event identifier[[,]] ; and ~~wherein processing the instruction comprises:~~

modifying an entity indicated by the entity identifier and assigned to a group indicated by the group identifier with the modification information.

9. (Currently Amended) The method of claim ~~[[1]]~~ 5 wherein the hierarchical database is shared by a ticketing server that sends said ticket and a keying server that provides said keying information.

10. (Original) The method of claim 9 wherein the ticketing server and the keying server are located remotely from one another.

11. (Currently Amended) A machine readable storage medium having stored thereon machine executable instructions, execution of the machine readable instructions to implement a method for managing a content distribution environment in which events are transmitted among clients, the clients including sending clients and receiving clients, the method comprising:

receiving a request for a ticket from a requesting client, the ticket to include an instruction relating to a hierarchical database, an event summary identifying a set of events for which the requesting client is eligible;

responsive to receiving said ticket request, deriving the event summary from a hierarchical database comprising a plurality of groups, wherein each group can be assigned one or more clients and one or more events, the hierarchical database comprising an association between a plurality of events available at a plurality of sending clients and a plurality of receiving clients eligible to receive one or more of the plurality of events, and wherein the hierarchical database further comprising comprises a directed acyclic group structure in which the clients and events are assigned to groups such that clients assigned to a particular group are

eligible for events assigned to the particular group as well as events assigned to all ancestor groups of the particular group; and

~~processing the instruction based on the hierarchical database~~

sending the ticket including said event summary to the requesting client.

12. (Canceled)

13. (Currently Amended) The machine readable storage medium of claim 11, said method further comprising:

~~wherein the instruction comprises~~ receiving a new client instruction, the new client instruction including a client identifier and a group identifier[[,]] ; ~~and wherein processing the instruction comprises:~~

assigning a client indicated by the client identifier to a group indicated by the group identifier.

14. (Canceled)

15. (Currently Amended) The machine readable storage medium of claim 11, said method further comprising:

~~wherein the instruction comprises~~ receiving a key instruction, the key instruction referring to a particular event summarized on [[a]] said ticket for a particular the requesting client[[,]] ; ~~and wherein processing the instruction~~

~~comprises:~~

providing keying information to facilitate the event between the ~~particular~~
requesting client and at least one additional client.

16. (Currently Amended) The machine readable storage medium of claim
11, said method further comprising:

~~wherein the instruction comprises~~ receiving a new event instruction, the new
event instruction including a group identifier and an event identifier, the event
identifier indicating an event available from a particular client assigned to a group
indicated by the particular group identifier[[,]] ; ~~and wherein processing the
instruction comprises:~~

assigning the event indicated by the event identifier to the group
indicated by the group identifier.

17. (Currently Amended) The machine readable storage medium of claim
11, said method further comprising:

~~wherein the instruction comprises~~ receiving a delete instruction, the delete
instruction including a group identifier and an entity identifier, the entity identifier
comprising one of a client identifier and ~~a content~~ an event identifier[[,]] and ~~wherein
processing the instruction comprises:~~

deleting an entity indicated by the entity identifier from a group
indicated by the group identifier.

18. (Currently Amended) The machine readable storage medium of claim 11, said method further comprising:

~~wherein the instruction comprises~~ receiving a modification instruction, the modification including a group identifier, modification information, and an entity identifier, the entity identifier comprising one of a client identifier and ~~a content~~ an event identifier[[,]] ; ~~and wherein processing the instruction comprises:~~

modifying an entity indicated by the entity identifier and assigned to a group indicated by the group identifier with the modification information.

19. (Currently Amended) A management server apparatus for managing a content distribution environment in which events are transmitted among clients, the clients including sending clients and receiving clients, comprising:

a port to receive a request for a ticket from a requesting client, the ticket to include ~~an instruction relating to a hierarchical database, an event summary~~ identifying a set of events for which the requesting client is eligible;

a processing unit to derive, responsive to receipt of said ticket request, the event summary from a hierarchical database comprising a plurality of groups, wherein each group can be assigned one or more clients and one or more events, ~~the hierarchical database comprising an association between a plurality of events available at a plurality of sending clients and a plurality of receiving clients eligible to receive one or more of the plurality of events, and wherein~~ the hierarchical database further comprising comprises a directed group structure in which ~~the clients and events are assigned to groups such that~~ clients assigned to a particular group are

eligible for events assigned to the particular group as well as events assigned to all ancestor groups of the particular group; and

~~a processing unit to process the instruction based on the hierarchical~~
database

a sending unit to send the ticket including said event summary to the
requesting client.

20. (New) In an Internet-based content distribution environment in which events are transmitted among clients, the clients including sending clients and receiving clients, a method for facilitating retrieval of an event summary for a client, the event summary identifying a set of events for which that client is eligible, the method comprising:

receiving a request for the event summary;

responsive to receiving said event summary request, deriving the event summary from a hierarchical database comprising groups, wherein each group can be assigned one or more clients and one or more events, and wherein the hierarchical database comprises a directed acyclic group structure in which clients assigned to a particular group are eligible for events assigned to that particular group as well as for events assigned to all ancestor groups thereof; and

sending the event summary to the client.

21. (New) The method of claim 20, wherein said deriving further comprises:

identifying a first group within said hierarchical database to which the client is assigned;

adding all events assigned to said first group to said event summary;

identifying all ancestor groups of said first group according to said directed group structure of said hierarchical database; and

adding all events assigned to each of said ancestor groups to said event summary.

22. (New) The method of claim 20, wherein the client is authenticated prior to said deriving step, and wherein said sending step includes sending, for each event listed in said event summary, (i) a starting time for the event, (ii) an address corresponding to the sending client for the event, and (iii) an address of a key server for providing one or more symmetric encryption keys for the event.

23. (New) The method of claim 20, wherein said hierarchical database comprises a directed acyclic group structure.

24. (New) The method of claim 20, wherein said events are unicast events.

25. (New) The method of claim 20, wherein said events are multicast events.